CLAIMS

1. A method for detecting leaks in a fluid system to be tested comprising the steps of:

adding a fluorescent dye to a supply of oil to form a uniform mixture;

heating at least some of the mixture so that said oil is vaporized into smoke to create a carrier for said fluorescent dye;

delivering said smoke and said fluorescent dye carried thereby to the fluid system under test, whereby said smoke will exit a leak in the fluid system and said fluorescent dye will leave a fluorescent trace around the leak; and

shining ultraviolet light on the system under test to illuminate the trace left by the fluorescent dye around the leak.

2. The method for detecting leaks recited in claim 1, including the additional steps of placing the uniform mixture of oil and fluorescent dye within a chamber and heating said at least some of the mixture by means of a heating element located within said chamber.

3. The method for detecting leaks recited in claim 2, including the additional step of locating said heating element within said chamber above said uniform mixture of oil and fluorescent dye.

4. The method for detecting leaks recited in claim 3, including the additional step of blowing said at least some of said uniform mixture of oil and fluorescent dye within said chamber

towards said heating element.

5. The method for detecting leaks recited in claim 4, including the additional step of blowing said at least some of said uniform mixture of oil and fluorescent dye towards said heating element by means of air delivered under pressure to said mixture from an air source.

6. The method for detecting leaks recited in claim 5, including the additional step of connecting an air inlet tube to said air source, said air inlet tube communicating with said uniform mixture of oil and fluorescent dye within said chamber to deliver the air under pressure from said air source to said mixture for blowing said at least some of said mixture towards said heating element.

7. The method for detecting leaks recited in claim 6, wherein said air inlet tube has an inlet orifice formed therein and located within said uniform mixture of oil and fluorescent dye, said air inlet tube extending above said mixture so that said at least some of said mixture is suctioned through said inlet orifice and blown towards said heating element by means of the air under pressure delivered by said air inlet tube.

8. The method for detecting leaks recited in claim 4, including the additional step of blowing said at least some of said uniform mixture of oil and fluorescent dye towards said heating element by means of a non-flammable gas delivered under pressure to said mixture from a gas source.

9. The method for detecting leaks recited in claim 8, wherein said non-flammable gas is nitrogen.

10. The method for detecting leaks recited in claim 2, including the additional step of connecting a smoke outlet line to communicate with said chamber at a location above said uniform mixture of oil and fluorescent dye so that the smoke produced when said at least some of said mixture is vaporized is conveyed to the system under test via said smoke outlet line.